

Oregon Mercury Multiple Discharger Variance Issue Paper

November 21, 2019

Purpose: To discuss the remaining significant issues with Oregon's mercury MDV, key stakeholder comments that Oregon received, and determine EPA's position on each of these issues before talking with the State on Monday, November 25. See Appendix for additional background information on this variance.

Remaining Significant Issues for Discussion:

1. How sources of mercury other than the point-source dischargers are addressed

a. EPA's comment:

"Since factor 3 is used to justify the variance, specifically 'cannot be remedied,' then...the variance must identify how other sources (beyond the point sources) of mercury can be remedied and include those activities. For example, this could include non-point source reductions; commitments under existing programs, such as the Forest Practices Act and Ag Water Practices Act; and possibly air quality permitting or controls. Please cite to existing information sources."

b. Oregon's response to EPA's comment:

"Comment #7 states, 'In addition, the variance must identify how other sources (beyond the point sources) of mercury can be remedied and include those activities.' Can EPA please clarify if we need to include that information in the rule or in supporting documentation in order for the variance to be approvable?"

i. If EPA intends for DEQ to include that information, or reference to that information, in the rule, DEQ would like clarification for why this request goes beyond the additional information required for a waterbody variance, which DEQ is not proposing. 40 CFR 131.14(b)(2)(iii) requires that supporting documentation include identification and documentation of any cost-effective and reasonable BMPs for nonpoint source controls, not the variance itself.

ii. Because variances only apply for purposes of developing NPDES permit limits and requirements, DEQ is unclear why it appears that EPA is requiring a "State PMP" that goes beyond what is required for dischargers.

iii. Furthermore, if EPA intends for DEQ to include that information in the rule, DEQ would like further clarification regarding the boundaries between what is a discharger-specific variance, a waterbody variance, a UAA, etc. DEQ is concerned that EPA's request blurs these boundaries."

c. Relevant comments from stakeholders:

(NWEA, bottom of page 1): "Yes, the source of the mercury to Oregon lands is primarily air deposition but the primary source of mercury to Oregon waters is Oregon nonpoint sources. See DEQ, *Revised Willamette Basin Mercury TMDL Draft for Public Comment* (July 3, 2019) (hereinafter "Mercury TMDL") at 62, Table 10-1 (showing that mercury contributions from general nonpoint sources are 94.5 percent of the total loading). Until DEQ is "transparent" about that fact, rather than hiding behind the smokescreen of international air pollution,

Oregon will never stand a chance of cleaning up the unsafe levels of mercury in the waters of the Willamette Basin—in 20 years or any number of years. Indeed, the increment of progress that will be made under the variance will be so tiny as to be unmeasurable. The purpose of this variance is quite clearly not to make incremental progress because, if it were, DEQ would be adopting a water body variance that focused on controlling nonpoint sources. The only thing that is “transparent” here is DEQ’s continuing fear of regulating nonpoint sources of pollution in Oregon.”

(NWEA, bottom of page 2): “DEQ has not addressed how a variance that is solely focused on NPDES permitted sources can result in “incremental progress in reducing mercury” in the Willamette that is in any measure useful.”

(NWEA, page 4): “Specifically, what DEQ has done is take a federal rule that refers to “discharger(s)-specific” variances, which means—assuming that one can read—one or more named dischargers, and “water body or waterbody segment” variances, which means that nonpoint sources are included, and split off the plural version of “discharger” and moved it partially, but only partially, into the requirements for a water body variance. That is, it has removed the clear federal requirement to name the dischargers while omitting the requirement to identify nonpoint source controls. *Compare id.* at (b)(1)(i)(“[d]ischarger(s)-specific WQS variances must also identify the permittee(s)”) *with id.* at (b)(2)(iii)(“for a WQS variance that applies to a water body or waterbody segment . . . [i]dentification and documentation of any cost-effective and reasonable best management practices for nonpoint source controls”). Instead, DEQ just says that we should “note that submittal requirements for multiple discharger and waterbody variances will be noted in the rule for these variances,” thereby putting multiple discharger variances into an altogether new category of variances that pertain to named dischargers but that function like water body variances. *Notice* at 109. This is all, as is too starkly obvious, to avoid having to talk about nonpoint sources.”

(NWEA, page 9): “The measure of DEQ’s pathetic inability to make any movement towards controlling nonpoint sources is demonstrated by its deletion of a small provision that would require a permittee to take some measure of responsibility for “nonpoint sources under the control of the discharger.” But no, apparently that’s a step too far for DEQ. It is entirely unclear why nonpoint sources under the control of the discharger would not be required to be part of a discharger’s pollutant minimization plan. That would be the plan that is required by proposed (4)(a)(E) that apparently DEQ intends be as narrow as possible in its pollution minimization efforts.”

(NWEA, page 16): “DEQ’s finding that the mercury sources—“human-caused sources of mercury from global mercury emissions and erosion of native soils are deposited or transported to Willamette Basin”—“cannot be remedied to meet the underlying designated use and criterion” is flawed because DEQ has not evaluated whether it can use the state’s nonpoint source authority to “remedy” the erosion of native soils such that the use and criterion can be met.”

2. Specificity of Oregon’s PMPs

a. EPA’s comment:

“Please provide clarifying edits to ensure that it is clear that the activities specified in section 3.2.2 “Implementation of a Mercury Minimization Plan” constitute the MMP for this variance. To reduce confusion, please refer to the facility-specific information that will be provided once a facility qualifies for the variance as implementation of the MMP.”

b. Oregon’s response to EPA’s comment:

None. Oregon appears willing to address this comment.

c. Relevant comments from stakeholders:

(NWEA, page 15): “For other than dental offices, DEQ has called for the identification of other possible indirect mercury dischargers, *id.* at (C) and (D), and outreach to such dischargers, *id.* at (E) and (F), but it has stopped short of actually requiring the dischargers to regulate the indirect dischargers. This level of effort—identification and outreach—is less than what is required to make these truly “minimization” plans. The addition of “regulation” would achieve that end.”

3. Justification for HAC3 (no additional feasible pollutant control technology)

a. EPA’s comment:

“Since factor 3 is used to justify the variance, specifically ‘cannot be remedied,’ then for the HAC3 justification, the EPA recommends that DEQ include a discussion of what can be remedied by the state and the dischargers covered by the variance. Please describe the reasons why the reductions achievable through the Mercury Minimization Plans (MMPs) are those that can be remedied within the 20-year term of the variance.”

b. Oregon’s response to EPA’s comment:

“DEQ agrees that a discussion of what can be remedied by the discharger and the state during the term of the variance is needed in order to justify the variance and the term of the variance. Can EPA please clarify why this discussion is needed for the “HAC3 justification,” as EPA’s comment mentions.”

c. Relevant comments from stakeholders:

(NWEA page 15): “DEQ has not analyzed the use of additional treatment technology for the removal of nutrient pollution that would also have the benefit of reducing mercury pollution. The fact that DEQ has included language about the use of additional technology to address pollutants other than mercury points to the possibility that DEQ is well aware of this fact. In addition, how does DEQ make a finding that the use of additional treatment technology would be more environmentally harmful as compared to mercury minimization plans when it literally has no such plans before it when it makes this finding?”

(Clean Water Services, bottom of page 6): “The paragraph continues, noting that source reduction can achieve significant reductions in mercury, which are in some cases similar to those achieved by facilities employing advanced treatment. We are concerned about using this as a basis for the multidischarger variance particularly if municipalities are asked to demonstrate that the mercury minimization practices are resulting in effluent levels similar to those achieved by advanced treatment facilities. Such a demonstration may be difficult and is not supported by the data. While minimization practices can be effective at reducing

discharges of mercury into the environment, many of these practices have already been implemented (e.g., dental category) and others do not have a wastewater nexus and as such are difficult to link to improvement in effluent quality.

Looking at the District's data, we implement the same mercury minimization program across the entire service area but effluent quality is better at the two advanced treatment facilities than the two conventional secondary facilities. A recent study notes that improving effluent quality can be linked directly to the level of technology being used at the WWTF. While employing mercury minimization plans should be a key element of the variance, it should not be touted as being equivalent to providing advanced treatment."

4. Multiple discharger variance vs. waterbody variance

Stakeholders seemed to be confused about whether this was a MDV or waterbody variance, and which requirements apply as a result. NWEA appears to take issue with the MDV construct, per the following comments:

(Page 10): "DEQ misconstrues the meaning of a water quality standard. A standard is adopted by rule and approved by EPA. It is not, for example, like a general permit, where a source can obtain coverage under the terms of the permit after it has been issued. Here, it seems clear that DEQ's intent is to create the shell of a "multiple discharger variance" that it expects EPA will approve and only after its having been approved in that fashion will DEQ accept applicants for coverage. This is not consistent with the federal regulations or the law pertaining to water quality standards. Instead, it is an obvious attempted work-around to providing such coverage under a water body variance, a type of variance that would require DEQ to make some effort to control nonpoint sources of the pollutant at issue. NWEA could provide a detailed analysis of precisely how the proposed rule is inconsistent with the federal regulations but it is clear to us that the agency knows full well what it is doing."

(Page 15): "Only a water body or waterbody segment variance can qualify for this type of variance in which dischargers are allowed to apply for coverage after EPA's approval."

Summary of Oregon's proposed multi-discharger variance for mercury

- **Scope:** All dischargers to the Willamette who have reasonable potential to cause or contribute to exceedances of the state's human health methylmercury criterion. [Note that OR currently has one of the most stringent human health criteria for methylmercury in the US].
- **Term:** 20 years for all eligible dischargers
- **Variance justification:** Factor 3 - Mercury is a human caused condition that cannot be remedied by the dischargers or the state to the criterion levels during the variance term, because of out-of-state contributions and limits of technology.
- **HAC selection and justification:** HAC3 for all facilities (municipalities and industrial facilities at all levels of performance). Separate justifications for facilities with advanced treatment (i.e., those employing nutrient removal, tertiary or other post-secondary treatment filtration; in these cases OR asserts that no additional treatment technology exists to remove additional mercury beyond current performance) vs. facilities without advanced treatment where OR asserts that technology upgrades would cause environmental harm and mercury minimization plans will lead to the same levels over time without the environmental damage.

Previous comments that EPA sent to Oregon and Oregon's responses

1. Oregon must identify all facilities (and associated waterbodies) in rule that might qualify for the variance. To be able to clearly justify the need and identify the HAC, Oregon should categorize separately the municipalities and industrials, and note which have advanced treatment and which do not.
 - a. Oregon listed potential permittees (by category – municipalities with and without advanced treatment and industrials) and specified that facilities not listed but which meet eligibility requirements may qualify for the variance.
 - b. Oregon's proposed eligibility requirements that a facility must meet to qualify for this variance: (1) Operate a permitted municipal or industrial discharger employing a minimum of secondary treatment; (2) Hold an individual NPDES permit to discharge wastewater to waters of the Willamette Basin; (3) Have effluent levels greater than the water concentration value needed to meet the HHC for methylmercury; (4) Have the potential to reduce mercury from the facility's effluent or in the receiving waterbody.
2. If this is an HAC3 variance, the PMPs must be identified up-front as part of the variance (not later when dischargers qualify for the variance).
 - a. Oregon provided the required elements for PMPs for municipalities and industrials and allowed for additional facility-specific PMPs to be developed later.
 - b. Montana variance implication: The legal vulnerability of "PMPs to be developed *later*" may potentially be mitigated by having the State define a deadline of when these PMPs must be developed.
3. Oregon should consider HAC2 for facilities without advanced treatment. EPA offered that the HAC2 "interim effluent condition that reflects the greatest pollutant reduction achievable" could be achieved through technology upgrades or PMPs, given the evidence that PMPs for mercury can achieve similar levels as advanced treatment.
 - a. Oregon maintains that HAC3 is appropriate for all facilities, including facilities that are planning to upgrade at some point during the 20-year term.

4. Oregon needs to better justify the 20-year term, especially given that the facilities have varying levels of performance.
 - a. Oregon maintains that a 20-year term is appropriate for all dischargers because it will provide the state with sufficient time to collect and evaluate data to determine the extent to which the variance has resulted in decreased influent and effluent mercury concentrations. Oregon points to Wisconsin's mercury reduction efforts and how it has taken 15 years for Wisconsin to see results from implementation of mercury minimization plans.
5. Because this is a factor 3 variance based on "cannot be remedied" (not "cause more environmental damage to correct than to leave in place") and therefore the lens is not just what the discharger can remedy but also what the State can remedy, Oregon must commit to its own mercury minimization plan (i.e., PMP) that will include measures such as reducing erosion and runoff.
 - a. Oregon incorporated the nonpoint source activities contemplated in the Willamette TMDL by reference into the supporting documentation for the variance. However, this incorporation by reference is not binding in the variance regulations themselves.

Outstanding issues and options

1. HAC Justification
2. 20 Year Term
3. Binding Statewide PMPs

Issue 1: HAC Justification

Oregon acknowledges that HAC2 (interim effluent condition that reflects the greatest pollutant reduction achievable) may seem appropriate for facilities without advanced treatment, as there is additional treatment that may lead to ancillary mercury reductions. However, Oregon argues that HAC3 (if no additional feasible pollutant control technology can be identified, the interim criterion or interim effluent condition that reflects the greatest pollutant reduction achievable with the pollutant control technologies installed at the time the State adopts the WQS variance, and the adoption and implementation of a Pollutant Minimization Program) is the most reasonable approach for the following reasons:

1. Variability: Oregon argues that mercury effluent concentrations from facilities with advanced treatment are highly variable. Because of this variability, ODEQ argues that it is not possible to set a future effluent condition (required by HAC2).
2. MMPs: Oregon argues that diligent implementation of MMPs (and therefore reducing mercury sources up front rather than relying on treatment) is consistent with EPA's guidance on implementation of methylmercury criteria.
3. Aggregate Approach: Oregon argues that source reduction activities over time can result in significant reductions in effluent mercury levels when assessed in aggregate over multiple facilities (rather than assessing facilities individually).
4. Environmental Damage: Oregon argues that there will be greater environmental damage caused by removing the mercury through treatment than through source reduction due to higher energy costs and the need for additional waste disposal.
 - a. Note: Oregon specifies that wastewater dischargers contribute less than 1% of the total mercury load to the Willamette – most is due to global air deposition.

5. Economic Cost: Oregon argues that advanced treatment would be expensive (costing Oregon ratepayers an estimated \$15-36 million/year) without measurable environmental benefit.
6. Oregon Law: Oregon argues that, because Oregon state law specifies that DEQ shall protect human and ecosystem health by controlling pollutants while also minimizing negative economic impacts on Oregon's economy, requiring treatment upgrades would result in negative economic impacts to dischargers while not measurably improving exposure to mercury.

Options:

Ex. 5 Deliberative Process (DP)

Note: We talked with OWM and R10 permits about the option of a bubble permit that would incorporate a 10% aggregate wasteload reduction. We were hoping this would allow Oregon to adopt an HAC2 variance for all facilities with the quantifiable expression being a 10% aggregate reduction and issue a single permit with MMP, monitoring requirements, and a 20-year compliance schedule. OWM indicated that a bubble permit would only work if the facilities can meet the aggregate limit on Day 1 and compliance schedules would only be possible at the individual facility level. Pending any new information or ideas from ODEQ, the bubble permit idea does not appear to be a viable option.

Issue 2: 20-Year Term Justification

Oregon argues that a 20-year term will provide ODEQ with sufficient time to collect and evaluate data to determine the extent to which the variance has resulted in decreased influent and effluent mercury concentrations. However, Oregon does not provide any explanation for why all the potentially eligible facilities should receive the same term when they are at varying levels of treatment and varying stages of PMP implementation for mercury.

Options:

Ex. 5 Deliberative Process (DP)

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Issue 3: Binding Statewide PMPs

Per EPA's comments that given the Factor 3 "cannot be remedied" justification, Oregon had to also evaluate what could be remedied by the state. Therefore, Oregon incorporated the nonpoint source activities contemplated in the draft Willamette TMDL by reference into the supporting documentation for the variance. However, this incorporation by reference is not binding and not in the variance regulations themselves.

Options:

Ex. 5 Deliberative Process (DP)